

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

News

Human origins

Yet more twists and turns in the evolution of our species p10

Covid-19

What we know about how the illness affects the brain p12

Climate change

New plans to test geoengineering in the oceans p13

Migration

Closing in on the secrets of how birds navigate p18

Life on Venus?

Clouds on the planet are far drier than we thought p19



Coronavirus

Delta to dominate world

This surging variant of the coronavirus is on course to outcompete all the other versions of the virus globally, reports **Adam Vaughan**

THE more transmissible delta variant of the coronavirus is on track to become the dominant form globally, experts tell *New Scientist*. First seen in India and now in at least 85 nations, its spread has led to new lockdowns and other curbs across the world.

"Globally there is a lot of concern about the delta variant, and the World Health Organization is concerned about it too," said Tedros Adhanom Ghebreyesus, director-general of the WHO, at a press conference on 25 June.

Currently, delta is recorded as the second most dominant variant of concern globally. At around 80,000 cases detected to date, it still lags behind the 1 million detected cases of alpha, the variant first identified in the UK.

But delta's rapid dominance in the UK shows how fast it can spread, even in a country with high vaccination rates. Delta was first detected in the UK in mid-April. It now accounts for 95 per cent of all new cases and has delayed the easing of restrictions.

The variant is also spreading fast through Europe. In Portugal, it amounts to 70 per cent of cases in Lisbon. The European Centre for Disease Prevention and Control projects that, by the end of August, delta will be responsible for 90 per cent of European Union cases.

It is calling for an acceleration of EU vaccination programmes, noting that a double dose provides nearly the same protection against the delta variant as against older ones.

Other parts of the world are also struggling with delta. Lockdowns have been imposed in Greater Sydney, Australia, following more than 100 new cases of the variant. Israel has reintroduced a mandate on face masks just 10 days after lifting it, following imported cases of delta. In the US, the number of cases of the variant has increased from about 10 per

Daily coronavirus news round-up Online every weekday at 6pm BST newscientist.com/coronavirus-latest People sign up for covid-19 tests in Cascais, Portugal, to combat the delta variant

cent of infections on 15 June to around 20 per cent now.

Even Singapore, which fared well in controlling earlier stages of the pandemic, has seen the variant become dominant, though daily case numbers remain very low.

"Unless something else comes along, delta is probably going to outcompete all the other viruses around," says Ravi Gupta at the University of Cambridge.

A study by Gupta and his colleagues, yet to be peer reviewed, found delta not only spreads more easily than earlier variants, but evades vaccine protection better. However, while vaccine efficacy was reduced, Gupta says the findings show that it is still protective against severe disease.

Eric Topol at the Scripps
Research Translational Institute
in California says it is just a matter
of time until the variant makes
significant inroads across South
America. "I don't think there's
any question that delta will be
globally dominant as it has shown
exponential growth on multiple
continents now," he says.

The toll the variant takes will largely depend on vaccination status and how many people have immunity from previous infections, adds Topol. "Places with high vaccination rates are unlikely to see a significant rise in deaths, and hospitalisations are clearly flatter when the older, highrisk people are predominantly vaccinated," he says.

The big danger from delta's global spread is for countries where few people are vaccinated, says Gupta. "It's going to lead to a great disruption and a large number of deaths in places where there isn't much vaccine," he says. Gupta is also concerned about high levels of delta leading to new mutations of the variant.